



# Switchgear Systems Ltd

Manufacturers of Electrical Switchgear

## ATS Catalogue



FOR THOSE WHO  
NEED *SPEED!*

At Switchgear Systems Ltd. we build most of our switchgear in wall mounting sheet steel powder coated RAL 7035 enclosures. There should be no need for spreader boxes with our equipment as the enclosures are suitably sized for the spreading of typical cable sizes suitable for the switchgear's current carrying capacity. Where larger sizes and quantities of cables are being used we can put them into bigger enclosures and manufacture bespoke extension terminals. As well as the standard enclosure we also offer a range of material options for both the enclosure and gland plate/s, as well as a number of accessories.

#### Enclosure material options:

- Standard RAL7035 sheet steel
- Alternative colour options
- Stainless steel enclosures
- GRP enclosures
- Floor standing sheet steel

#### Gland plate material options:

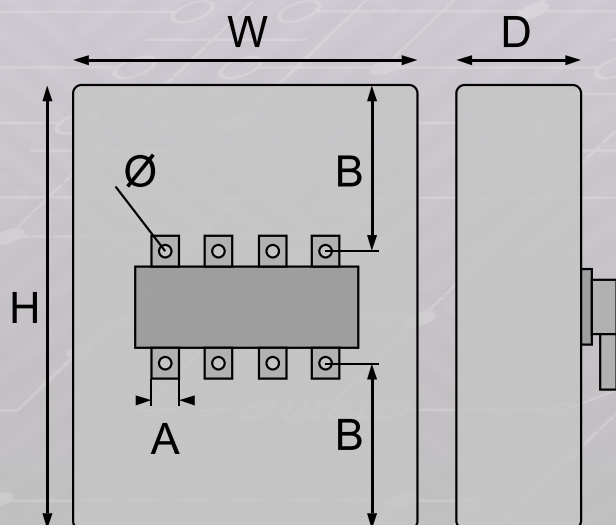
- Standard sheet steel
- Aluminium
- Brass
- Insulation board
- Brushed cable entry

#### Accessories:

- Mounting brackets
- Padlockable hasps
- Metering and CT's
- Indicator lights
- Castell Interlocks
- And many others

Reference diagram for dimensions shown in tables throughout catalogue

- H - Height of enclosure
- W - Width of enclosure
- D - Depth of enclosure (does not include handle or any other external components)
- A - Width of terminal
- B - Cable room measured from connection point to the end of enclosure
- Ø - Terminal connection diameter



All items are sold under Switchgear Systems Limited standard terms and conditions, a copy of which can be found on our website ([www.switchgear-systems.com](http://www.switchgear-systems.com)).

It is the responsibility of the installer to ensure items are fitted to the requirements of BS 7671 (Wiring Regulations) and best working practice.



# Choosing an Automatic Transfer Switch

## Bypass Switch Style

### Single Line Bypass

Suitable for most life safety applications as required by BSEN 8519:2020. When in bypass mode this arrangement isolates the output of the ATS and both power supplies. It then re-routes one of the supplies (normally the primary) around the ATS to its load. It also includes a central 'Test' position where bypass is maintained but power is closed to the ATS so it can be tested without interruption to the load.

### Dual Line Bypass

Similar to the single line with the ability to divert either power source to the load via an additional changeover switch. These also conform to the same regulations as the single line arrangement.

## ATS Panel Style

### M2M - Mains To Mains

These are simple ATS units and are used where the backup supply is always assumed to be available. They do not include any timers, firefighting indication or generator start facility and will simply monitor the primary supply for over and under voltage, phase loss and correct phase sequence. If it senses a fault it will switch power to the secondary supply, only returning power to the primary source when it returns.

### M2B - Mains To Backup

These ATS units do everything that the M2M model does with the addition of firefighting indication as required by BSEN 9999, delay timers often required for lifts and generator start signalling for the secondary supply where required. The V2 model covers all the requirements for BSEN 8519:2020. When the ATS senses that the primary supply is healthy again it will switch back to it. An adjustable cooldown timer keeps the generator running for a period of time.

### M2G - Mains To Generator

These ATS panels are designed specifically for advanced mains to generator applications which require more functionality, normally because the genset is in a remote location. Fitted with a Deep Sea Electronics 331 microprocessor controller that requires a small but constant DC supply, normally taken from the battery on the GenSet. All V2 models conform to BSEN 8519:2020. Other controllers with additional functionality can also be supplied where necessary.

# Choosing an Automatic Transfer Switch

ATS type	M2M Mains-to-mains				M2B Mains-to-backup				M2G Mains-to-generator			
	SLV2	DLV2	None	SLV1	SLV2	DLV2	None	SLV1	SLV2	DLV2	None	SLV1
Phase failure and undervoltage monitoring of primary supply	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Interlocked Contactor switching			✓*	✓			✓*	✓			✓*	✓
Motorised Changeover switching	✓	✓	✓*		✓	✓	✓*		✓	✓	✓*	
Test facilities & supply override	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Supply available indication	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Supply in use indication					✓	✓	✓	✓	✓	✓	✓	✓
Adjustable time delay between switching					✓	✓	✓	✓				
Generator start signal timer and cool down timer					✓	✓	✓	✓	✓	✓	✓	✓
Advanced interface for GenSet control									✓	✓	✓	✓
Requires constant DC supply to operate									✓	✓	✓	✓
Suitable for standard Remote Indication Unit	✓	✓	✓	✓					✓	✓	✓	✓
Suitable for advanced Remote Indication Unit					✓	✓	✓	✓				
Suitable for firefighting lifts as detailed in BSEN 9999					✓	✓		✓				
Conforms to life safety requirements of BSEN 8519:2020	✓	✓			✓	✓			✓	✓		

\*Dependant on current rating - Interlocked contactors upto 160A & motorised changeover switches 200A and above

## ATS Part Code Construction



# Life Safety ATS Panels with Single Line Bypass

These models are designed to satisfy the life safety requirements for BSEN 8519:2020

- Designed in compliance with BSEN 60947-6-1
- For life safety requirements as detailed in BSEN 8519:2020 and BSEN 9999
- Manual single line bypass in separate compartment conforming to BSEN 61439-2
- Electrical and mechanical interlocks between supplies via motorised changeover switch
- All phases on primary supply monitored to protect against total power loss, phase failure, incorrect phase sequence and under/over voltage
- Test facilities and supply override
- Adjustable over and under voltage trip delay
- Adjustable over and under voltage limits
- External LED indicators and volt free remote terminals to show supply status
- Ingress protection IP55
- Delay timers for supply load, generator warmup and generator cooldown (M2B and M2G only)



AC1 Rating 380-440V	AC3 Rating 380-440V	Ordering Reference M2M	Ordering Reference M2B	Ordering Reference M2G	Dimensions (mm) <small>*see inner front cover for reference diagram</small>					
					H	W	D	A	Ø	B

## 2 Pole for single phase supplies

40A	40A	11kW	ATS 4/2 M2M/SLV2	ATS 4/2 M2B/SLV2	ATS 4/2 M2G/SLV2	900	400	200	25 cage	100
63A	40A	11kW	ATS 6/2 M2M/SLV2	ATS 6/2 M2B/SLV2	ATS 6/2 M2G/SLV2	900	400	200	25 cage	100
80A	40A	11kW	ATS 8/2 M2M/SLV2	ATS 8/2 M2B/SLV2	ATS 8/2 M2G/SLV2	900	400	200	35 cage	100
100A	80A	22kW	ATS 10/2 M2M/SLV2	ATS 10/2 M2B/SLV2	ATS 10/2 M2G/SLV2	1000	400	200	35 cage	100

## 4 Pole for three phase supplies

40A	20A	11kW	ATS 4/4 M2M/SLV2	ATS 4/4 M2B/SLV2	ATS 4/4 M2G/SLV2	900	400	200	25 cage	120
63A	40A	22kW	ATS 6/4 M2M/SLV2	ATS 6/4 M2B/SLV2	ATS 6/4 M2G/SLV2	1000	400	200	25 cage	120
80A	53A	30kW	ATS 8/4 M2M/SLV2	ATS 8/4 M2B/SLV2	ATS 8/4 M2G/SLV2	800	600	200	35 cage	150
100A	53A	30kW	ATS 10/4 M2M/SLV2	ATS 10/4 M2B/SLV2	ATS 10/4 M2G/SLV2	800	600	200	35 cage	150
125A	80A	45kW	ATS 12/4 M2M/SLV2	ATS 12/4 M2B/SLV2	ATS 12/4 M2G/SLV2	800	600	200	70 cage	150
160A	116A	55kW	ATS 16/4 M2M/SLV2	ATS 16/4 M2B/SLV2	ATS 16/4 M2G/SLV2	1200	600	400	20	M8 180
200A	200A	80kW	ATS 20/4 M2M/SLV2	ATS 20/4 M2B/SLV2	ATS 20/4 M2G/SLV2	1400	600	400	20	M8 280
250A	250A	100kW	ATS 25/4 M2M/SLV2	ATS 25/4 M2B/SLV2	ATS 25/4 M2G/SLV2	1400	600	400	25	M10 280
400A	400A	150kW	ATS 40/4 M2M/SLV2	ATS 40/4 M2B/SLV2	ATS 40/4 M2G/SLV2	1400	600	400	30	M10 280
630A	630A	150kW	ATS 63/4 M2M/SLV2	ATS 63/4 M2B/SLV2	ATS 63/4 M2G/SLV2	1600	800	400	30	M10 280

800A + For ATS panels of 800A or above, or where you have special requirements please contact us for a quote

# Life Safety ATS Panels with Dual Line Bypass

These models are designed to satisfy the life safety requirements for BSEN 8519:2020

- Designed in compliance with BSEN 60947-6-1
- For life safety requirements as detailed in BSEN 8519:2020 and BSEN 9999
- Manual dual line bypass in separate compartment conforming to BSEN 61439-2 allowing diversion of either incoming supply during bypass operations.
- Electrical and mechanical interlocks between supplies via motorised changeover switch
- All phases on primary supply monitored to protect against total power loss, phase failure, incorrect phase sequence and under/over voltage
- Test facilities and supply override
- Adjustable over and under voltage trip delay
- Adjustable over and under voltage limits
- External LED indicators and volt free remote terminals to show supply status
- Ingress protection IP55
- Delay timers for supply load, generator warmup and generator cooldown (M2B and M2G only)



AC1 Rating 380-440V	AC3 Rating 380-440V	Ordering Reference M2M	Ordering Reference M2B	Ordering Reference M2G	Dimensions (mm) <small>*see inner front cover for reference diagram</small>					
					H	W	D	A	Ø	B

## 2 Pole for single phase supplies

40A	40A	11kW	ATS 4/2 M2M/DLV2	ATS 4/2 M2B/DLV2	ATS 4/2 M2G/DLV2	800	600	200	25 cage	100
63A	40A	11kW	ATS 6/2 M2M/DLV2	ATS 6/2 M2B/DLV2	ATS 6/2 M2G/DLV2	800	600	200	25 cage	100
80A	40A	11kW	ATS 8/2 M2M/DLV2	ATS 8/2 M2B/DLV2	ATS 8/2 M2G/DLV2	800	600	200	35 cage	100
100A	80A	22kW	ATS 10/2 M2M/DLV2	ATS 10/2 M2B/DLV2	ATS 10/2 M2G/DLV2	800	600	200	35 cage	100

## 4 Pole for three phase supplies

40A	20A	11kW	ATS 4/4 M2M/DLV2	ATS 4/4 M2B/DLV2	ATS 4/4 M2G/DLV2	1000	600	200	25 cage	120
63A	40A	22kW	ATS 6/4 M2M/DLV2	ATS 6/4 M2B/DLV2	ATS 6/4 M2G/DLV2	1000	600	200	25 cage	120
80A	53A	30kW	ATS 8/4 M2M/DLV2	ATS 8/4 M2B/DLV2	ATS 8/4 M2G/DLV2	1200	600	200	35 cage	180
100A	53A	30kW	ATS 10/4 M2M/DLV2	ATS 10/4 M2B/DLV2	ATS 10/4 M2G/DLV2	1200	600	200	35 cage	180
125A	80A	45kW	ATS 12/4 M2M/DLV2	ATS 12/4 M2B/DLV2	ATS 12/4 M2G/DLV2	1200	600	200	70 cage	180
160A	116A	55kW	ATS 16/4 M2M/DLV2	ATS 16/4 M2B/DLV2	ATS 16/4 M2G/DLV2	1800	800	400	20	M8 280
200A	200A	80kW	ATS 20/4 M2M/DLV2	ATS 20/4 M2B/DLV2	ATS 20/4 M2G/DLV2	1800	800	400	20	M8 280
250A	250A	100kW	ATS 25/4 M2M/DLV2	ATS 25/4 M2B/DLV2	ATS 25/4 M2G/DLV2	1800	800	400	25	M10 280
400A	400A	150kW	ATS 40/4 M2M/DLV2	ATS 40/4 M2B/DLV2	ATS 40/4 M2G/DLV2	1800	800	400	30	M10 280

630A + For ATS panels of 630A or above, or where you have special requirements please contact us for a quote



# ATS without Bypass

These models are a simpler design and are suited to non-life safety systems where bypass equipment has not been requested

- Designed in compliance with BSEN 60947-6-1
- Electrical and mechanical interlocks between supplies  
Dual interlocked contactors on 160A units and below  
Motorised changeover switches on 200A units and above
- All phases on primary supply monitored to protect against total power loss, phase failure, incorrect phase sequence and under/over voltage
- Test facilities and supply override
- Adjustable over and under voltage trip delay
- Adjustable over and under voltage limits
- External LED indicators and volt free remote terminals to show supply status
- Ingress protection IP55
- Delay timers for supply load, generator warmup and generator cooldown (M2B and M2G only)



AC1 Rating 380-440V	AC3 Rating 380-440V	Ordering Reference M2M	Ordering Reference M2B	Ordering Reference M2G	Dimensions (mm) <small>*see inner front cover for reference diagram</small>					
					H	W	D	A	∅	B

## 2 Pole for single phase supplies

40A	40A	11kW	ATS 4/2 M2M	ATS 4/2 M2B	ATS 4/2 M2G	500	400	200	25 cage	100
63A	40A	11kW	ATS 6/2 M2M	ATS 6/2 M2B	ATS 6/2 M2G	500	400	200	25 cage	100
80A	40A	11kW	ATS 8/2 M2M	ATS 8/2 M2B	ATS 8/2 M2G	600	400	200	35 cage	120
100A	80A	22kW	ATS 10/2 M2M	ATS 10/2 M2B	ATS 10/2 M2G	600	400	200	35 cage	120

## 4 Pole for three phase supplies

40A	20A	11kW	ATS 4/4 M2M	ATS 4/4 M2B	ATS 4/4 M2G	600	400	200	25 cage	120
63A	40A	22kW	ATS 6/4 M2M	ATS 6/4 M2B	ATS 6/4 M2G	600	400	200	25 cage	120
80A	53A	30kW	ATS 8/4 M2M	ATS 8/4 M2B	ATS 8/4 M2G	700	500	200	35 cage	150
100A	53A	30kW	ATS 10/4 M2M	ATS 10/4 M2B	ATS 10/4 M2G	700	500	200	35 cage	150
125A	80A	45kW	ATS 12/4 M2M	ATS 12/4 M2B	ATS 12/4 M2G	700	500	200	70 cage	150
160A	116A	55kW	ATS 16/4 M2M	ATS 16/4 M2B	ATS 16/4 M2G	800	600	250	70 cage	180
200A	200A	80kW	ATS 20/4 M2M	ATS 20/4 M2B	ATS 20/4 M2G	800	600	250	20	M8 300
250A	250A	100kW	ATS 25/4 M2M	ATS 25/4 M2B	ATS 25/4 M2G	800	600	300	25	M10 300
400A	400A	150kW	ATS 40/4 M2M	ATS 40/4 M2B	ATS 40/4 M2G	800	600	300	30	M10 300
630A	630A	150kW	ATS 63/4 M2M	ATS 63/4 M2B	ATS 63/4 M2G	1000	600	300	35	M10 400
800A	800A	80kW	ATS 80/4 M2M	ATS 80/4 M2B	ATS 80/4 M2G	1000	800	300	40	M12 375
1000A	1000A	100kW	ATS 100/4 M2M	ATS 100/4 M2B	ATS 100/4 M2G	1200	800	300	40	M12 475
1250A	1250A	150kW	ATS 125/4 M2M	ATS 125/4 M2B	ATS 125/4 M2G	1200	800	300	40	M12 475

# Contactor based ATS with single line Bypass

These are contactor based ATS not suitable for modern life safety requirements but offer a more budget friendly alternative when bypass is still required

- Designed in compliance with BSEN 60947-6-1
- Manual single line bypass in separate compartment conforming to BSEN 61439-2
- Electrical and mechanical interlocks between supplies via dual interlocked contactors
- All phases on primary supply monitored to protect against total power loss, phase failure, incorrect phase sequence and under/over voltage
- Test facilities and supply override
- Adjustable over and under voltage trip delay
- Adjustable over and under voltage limits
- External LED indicators and volt free remote terminals to show supply status
- Ingress protection IP55
- Delay timers for supply load, generator warmup and generator cooldown (M2B and M2G only)



AC1 Rating 380-440V	AC3 Rating 380-440V	Ordering Reference M2M	Ordering Reference M2B	Ordering Reference M2G	Dimensions (mm) <small>*see inner front cover for reference diagram</small>					
					H	W	D	A	∅	B
<b>2 Pole for single phase supplies with single line bypass switches</b>										
40A	40A	11kW	ATS 4/2 M2M/SLV1	ATS 4/2 M2B/SLV1	ATS 4/2 M2G2/SLV1	500	400	200	25 cage	100
63A	40A	11kW	ATS 6/2 M2M/SLV1	ATS 6/2 M2B/SLV1	ATS 6/2 M2G/SLV1	500	400	200	25 cage	100
80A	40A	11kW	ATS 8/2 M2M/SLV1	ATS 8/2 M2B/SLV1	ATS 8/2 M2G/SLV1	600	400	200	35 cage	120
100A	80A	22kW	ATS 10/2 M2M/SLV1	ATS 10/2 M2B/SLV1	ATS 10/2 M2G/SLV1	600	400	200	35 cage	120
<b>4 Pole for three phase supplies with single line bypass switches</b>										
40A	20A	11kW	ATS 4/4 M2M/SLV1	ATS 4/4 M2B/SLV1	ATS 4/4 M2G/SLV1	600	400	200	25 cage	120
63A	40A	22kW	ATS 6/4 M2M/SLV1	ATS 6/4 M2B/SLV1	ATS 6/4 M2G/SLV1	600	400	200	25 cage	120
80A	53A	30kW	ATS 8/4 M2M/SLV1	ATS 8/4 M2B/SLV1	ATS 8/4 M2G/SLV1	700	500	200	35 cage	150
100A	53A	30kW	ATS 10/4 M2M/SLV1	ATS 10/4 M2B/SLV1	ATS 10/4 M2G/SLV1	700	500	200	35 cage	150
125A	80A	45kW	ATS 12/4 M2M/SLV1	ATS 12/4 M2B/SLV1	ATS 12/4 M2G/SLV1	700	500	200	70 cage	150
160A	116A	55kW	ATS 16/4 M2M/SLV1	ATS 16/4 M2B/SLV1	ATS 16/4 M2G/SLV1	800	600	250	70 cage	180



# ATS Accessories

## ATS Panel Remote Indication Units

The ATS panels are supplied with volt free remote indication terminals which can be used to inform remote systems, such as a BMS, of the ATS panel's status. We supply a range of remote indication boxes which can be powered from these terminals.



Type	Ordering Reference	Dimensions (mm) <small>*see inner front cover for reference diagram</small>					
		H	W	D	A	Ø	B
<b>Halogen free thermoplastic enclosure - IP55</b>							
Standard	RBOX	135	160	83	2.5 cage	60	
Advanced	RBOXADV	135	160	83	2.5 cage	60	
<b>Flush mounted satin finish stainless steel enclosure - IP55</b>							
Standard	RBOX/SF	160	220	85	2.5 cage	72	
Advanced	RBOXADV/SF	160	220	85	2.5 cage	72	

## Self Sustaining DC Power Supplies

Whether built in or standalone, these self-sustaining power supplies include a charger and battery to power the digital controller on the M2G mains to generator ATS panels when an alternative source of DC power is not available.

Self Maintained Power Supplies	12V DC Order Reference	24V DC Order Reference
Built into the panel. Suffix reference	/12V MPS	/24V MPS
Stand alone MPS	160012	160024
Retro-Fit Voltage Change Kit	12V DC Order Reference	24V DC Order Reference
Kit of 3 relays	12VCK	24VCK

\*Note: All M2G panels need a continuous DC supply to power the control panel. This is normally taken from the generator battery; hence the control voltage has been selected to match normal battery voltages.

If you do not wish to use the generator battery a built-in or stand-alone self-maintained power source can be used.



# ATS Accessories

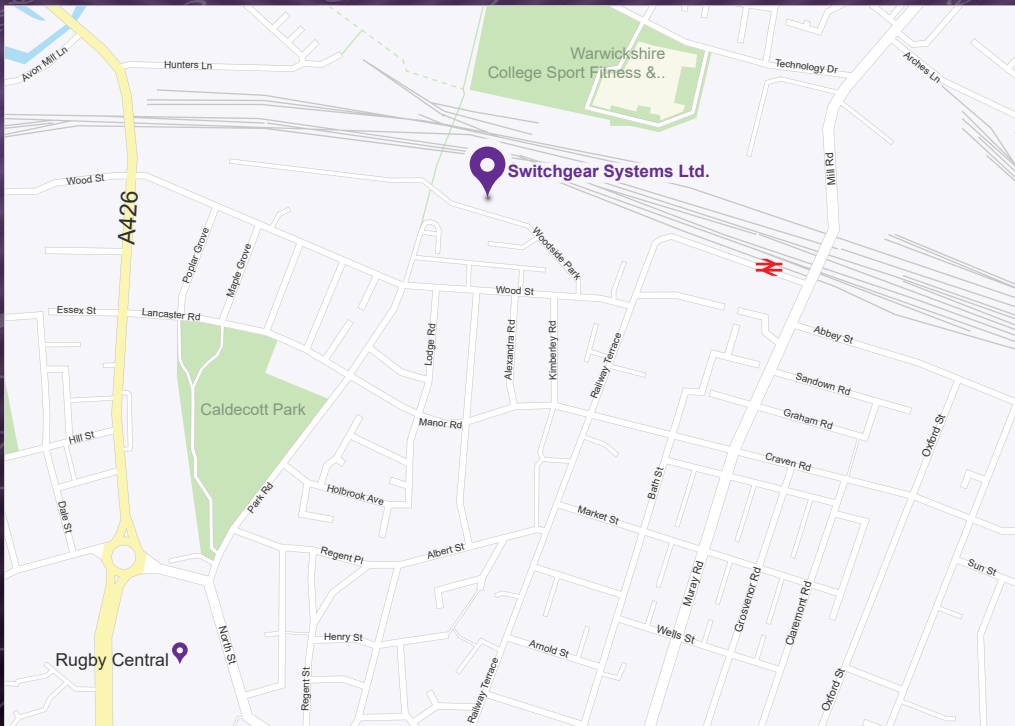


## ATS Bypass switches

Switchgear systems also offer a range of both single line and dual line standalone ATS bypass switches for single phase and three phase ATS applications. These are designed to be retrofitted into installations where an existing ATS panel requires the addition of bypass facilities

Nominal Rating I <sub>e</sub> 415V	Ordering Reference	Operating Handles	Dimensions (mm) <small>*see inner front cover for reference diagram</small>				
			H	W	D	A	Ø
<b>Single Line 2 Pole</b>							
63A	ST BYATS 6/2 SL	2	600	400	200	35 cage	
100A	ST BYATS 10/2 SL	2	600	400	200	35 cage	
125A	ST BYATS 12/2 SL	2	600	400	200	70 cage	
<b>Single Line 4 Pole</b>							
63A	ST BYATS 6/4 SL	2	600	400	200	35 cage	
100A	ST BYATS 10/4 SL	2	700	500	200	35 cage	
125A	ST BYATS 12/4 SL	2	700	500	200	70 cage	
250A	ST BYATS 25/4 SL	1	800	600	400	25	M10
400A	ST BYATS 40/4 SL	1	800	600	400	30	M10
630A	ST BYATS 63/4 SL	1	1000	600	400	30	M10
<b>Dual Line 2 Pole</b>							
63A	ST BYATS 6/2 DL	4	800	600	300	35 cage	
100A	ST BYATS 10/2 DL	4	800	600	300	35 cage	
125A	ST BYATS 12/2 DL	4	800	600	300	70 cage	
<b>Dual Line 4 Pole</b>							
63A	ST BYATS 6/4 DL	4	800	600	300	35 cage	
100A	ST BYATS 10/4 DL	4	800	600	300	35 cage	
125A	ST BYATS 12/4 DL	4	800	600	300	70 cage	
* 250A	ST BYATS 25/4 DL	2	1400	800	400	25	M10
* 400A	ST BYATS 40/4 DL	2	1400	800	400	30	M10
* 630A	ST BYATS 63/4 DL	2	1400	800	400	30	M10

\* 250A-630A dual line units come in floor standing enclosures



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Opening Hours: Mon - Thurs 8:30am - 5pm and Fri 8:30am - 3pm



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[www.switchgear-systems.com](http://www.switchgear-systems.com)